

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

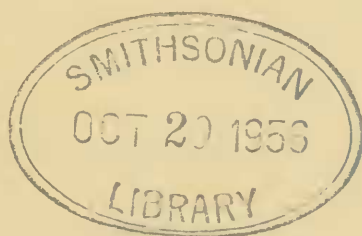
FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14 Part 1. Pp. 1—42

OPINION 417

Rejection for nomenclatorial purposes of volume 3
(Zoologie) of the work by Lorenz Oken entitled *Oken's
Lehrbuch der Naturgeschichte* published in 1815—1816



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

OPINION 417

REJECTION FOR NOMENCLATORIAL PURPOSES OF VOLUME 3 (ZOOLOGIE) OF THE WORK BY LORENZ OKEN ENTITLED "OKENS LEHRBUCH DER NATURGESCHICHTE" PUBLISHED IN 1815—1816

RULING :—(1) It is hereby ruled that in Volume 3 (Zoologie) of the work entitled *Oken's Lehrbuch der Naturgeschichte* published in 1815—1816 Lorenz Oken did not apply the principles of binominal nomenclature as required by Proviso (b) to Article 25 of the *Règles*, as amended by the Thirteenth International Congress of Zoology, Paris, 1948, and therefore that no name published in the foregoing volume of the above work acquired the status of availability by reason of having been so published.

(2) The title of the foregoing work is hereby placed on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* with the Title No. 33.

(3) Specialists in the groups dealt with in the foregoing work are invited to submit to the International Commission on Zoological Nomenclature applications for the validation under the Plenary Powers of any name published in it, the rejection of which would, in their opinion, lead to instability or confusion in the nomenclature of the group concerned.

I. THE STATEMENT OF THE CASE

On 20th May 1944, Dr. Wilfred H. Osgood (*Chicago Natural History Museum, Chicago, Illinois, U.S.A.*) submitted to the Commission the following request for a Ruling as to the availability under the *Règles* of names published in volume 3 (Zoologie) of Oken's *Lehrbuch der Naturgeschichte* published in 1815—1816:—

Application relating to the status of the names in Oken's "Lehrbuch der Naturgeschichte" submitted to the International Commission on Zoological Nomenclature by Dr. Wilfred H. Osgood in May 1944¹

**Are the names in Oken, 1815—1816,
"Lehrbuch der Naturgeschichte" 3 (Zoologie),
available under the *Règles* ?**

By WILFRED H. OSGOOD

(*Chicago Natural History Museum, Chicago, Illinois, U.S.A.*)

Oken's names were especially brought to attention by J. A. Allen in 1902 (*Bull. amer. Mus. nat. Hist.* 16 : 373—379). At this time Allen said : "Oken was almost as erratic and irregular in nomenclatorial matters as was Zimmermann in his *Specimen Zoologiae Geographicae*² published in 1777, but in some respects is less satisfactory, since he failed to cite authorities for the names used, and gave no reference to his sources of information. Both diagnosed generic, subgeneric and other groups, as well as species, under either vernacular or systematic names, as seemed to please their fancy, and employed the names given by previous authors as these authors used them, regardless of whether the generic portion of the name conformed or not to the genus to which they assigned the species. Yet they each had a "system"—sadly defective, however, when tried by the nomenclatorial usages of today."

2. Allen then discussed a number of Oken's generic and specific names of mammals which might be adopted for use instead of those

¹ When this application was published in the *Bulletin of Zoological Nomenclature*, it appeared as Appendix 1 of the Report on the status of new names published in Oken, [1815—1816], *Lehrbuch der Naturgeschichte*, prepared by Mr. Hemming at the request of the International Commission and the International Congress of Zoology at the meetings of those bodies held in Paris in July 1948. Mr. Hemming's Report is reproduced in paragraph 13 of the present *Opinion*. It was considered, however, that for the purposes of preparing this *Opinion* it would be more convenient if the documents annexed to Mr. Hemming's Report were detached from that position and were inserted in the *Opinion* in their original historical sequence.

² The *Specimen Zoologiae* of Zimmermann has since been rejected by the International Commission on Zoological Nomenclature as a work which does not comply with the requirements of Article 25, Proviso (b). See *Opinion* 257.

current at the time. Nowhere does he say that they must be used and his entire paper is factual rather than argumentative, his attitude being that of suspended judgment rather than conviction. In other words, his paper is that of a reporter rather than an advocate and what he says essentially is that, if Oken's names are acceptable, then certain changes are necessary.

3. Nevertheless, the Oken names have been accepted especially by British and American mammalogists and have been in general use for more than forty years. Among them are some of wide use not only in taxonomic but in general literature for some of the best known animals in the world. Examples are *Citellus* Oken, which replaced *Spermophilus* Cuvier for the very large group of ground squirrels of Asia and America, including species concerned in the transmission of disease and therefore dealt with in medical literature; *Panthera* Oken, which has been adopted as a genus or subgenus for the larger cats including the lion, tiger, leopard and some others; and *Thos* Oken for the jackals.

4. In 1904 (*S.B. Ges. naturf. Fr. Berlin* 1904 : 55), only two years after Allen's paper, the German mammalogist Matschie demurred by saying: "Die in Oken's *Lehrbuch der Naturgeschichte* verwendeten Bezeichnungen dürfen deshalb nicht gebraucht werden, weil die Grundsätze der binaren Nomenklatur in diesem Buche nicht befolgt sind."

5. In 1927 Stiles and Orlemann (*Bull. U.S. hyg. Lab.* 145 : 29), in dealing with the Primates, said of Oken's work: "From our viewpoint the nomenclature used by Oken, 1816, pp. 1223—1232, is not in harmony with International Rules, is neither consistently binary nor consistently binominal, hence is not available under the Law of Priority."

6. In 1932 (*Trab. Mus. Cienc. nat., Madrid (Zool.)* 57 : 106), Cabrera referred to Oken saying: "este autor no siguió la verdadera nomenclatura binaria, y por consiguiente sus nombres no deben admitirse". (Since, this author has consistently refused to recognise Oken's names and recently has issued a detailed defence of his position (1943, *Ciencia, Mexico* 4 : 108—111).)

7. The fact remains that Oken's names have attained wide currency in spite of expressed objection to them. They seem to be similar to the names of Gronovius, which were accepted by the Commission under *Opinion* 20 and later rejected by exercise of Plenary Power under *Opinion* 89. In fact it might well be argued that they are even less deserving than the names of Gronovius. Regardless of interpretation of the Code, a ruling on them appears to be necessary, since it is

now a question of "greater confusion than uniformity" apparently subject only to the exercise of the Plenary Power.³

2. Supplementary Note by Dr. Osgood : On receipt of the foregoing application Mr. Hemming, as Secretary, took the view that it would be helpful to the Commission if Dr. Osgood were to indicate more clearly the action which he recommended that the Commission should take. In response to an invitation addressed to him on this subject by Mr. Hemming, Dr. Osgood on 13th September 1944 wrote as follows :—

In regard to Oken's *Lehrbuch*, I would prefer to see it entirely suppressed. Allen, who first uncovered it and who has been followed considerably, did not make a very good case for it, and later authors, including both Stiles and Stejneger, I believe, have argued that it does not conform to the Code.

II. THE SUBSEQUENT HISTORY OF THE CASE

3. Registration of the present application : Upon the receipt of Dr. Osgood's application the question of the status of names in Oken's *Lehrbuch* was allotted the Registered Number Z.N.(S.) 153.

4. Report on the system of nomenclature employed by Oken in the "Lehrbuch der Naturgeschichte" furnished by Dr. Karl Jordan in June 1944 : At the time of the receipt of Dr. Osgood's application no copy of Oken's *Lehrbuch* was conveniently available for study in London owing to the evacuation as a precaution

³ It should be noted that *Opinion* 20 was rendered at a date prior to the grant to the International Commission of Plenary Powers to suspend the rules in certain cases. That *Opinion*, therefore, dealt only with the sole question, with which the International Commission was then empowered to deal, namely, the interpretation of the Code, the question then submitted being whether Gronovius in 1763, *Zoophylacium*, had "applied the principles of binary nomenclature" as required by proviso (b) to Article 25 of the International Code. The question dealt with in *Opinion* 89 is entirely different from that dealt with in *Opinion* 20, since *Opinion* 89 is not concerned in any way with the interpretation of the Code but with the question whether or not the Plenary Powers conferred upon the International Commission at Monaco in 1913 should or should not be used to suppress Gronovius, 1763, *Zoophylacium*, and certain other works.

against the risk of destruction in air-raids of the greater part of the contents of the great zoological libraries of London. Knowing, however, that there was a copy of this work in the library of the Zoological Museum at Tring, Mr. Hemming asked Dr. Karl Jordan, at that time President of the International Commission, whether he would kindly examine this work and furnish a report on the system of nomenclature used by Oken in it. In response to the foregoing invitation, Dr. Jordan on 10th June, 1944 furnished the following report :—

**On the system of classification used by Oken (L.) in his
“Lehrbuch der Naturgeschichte” of 1816⁴**

By KARL JORDAN, Ph.D., F.R.S.

(*British Museum (Natural History), Zoological Museum, Tring*)

(*Extract from a letter dated 10th June 1944, from
DR. KARL JORDAN (then President of the International
Commission on Zoological Nomenclature) to the
Secretary to the Commission*)

In order to understand Oken's classification and nomenclature, two main points must be kept in mind. (1) Animals were created according to a definite plan : a tribe (which he calls *Sippschaft*) consists of four genera in every family (Oken's *Zunft*) ; the number of species in each genus varies. Often there are so many kinds known that Oken subdivides the genus concerned. These divisions and subdivisions of a *Gattung* are marked by letters (e.g. the letters “a”, “b”, “c”, etc.). These are usually followed by one or more Latin names. The classification and nomenclature used are complicated. (2) Apart from the part relating to European animals, Oken's *Lehrbuch* is mainly a compilation. When uncertain about the systematic position of an animal, Oken often refers to the same animal in different places and gives more than one Latin name for it. The names so given are usually taken from the literature. He cites no authors' names and gives no bibliographical references for the Latin names cited. At the end of the volume he gives a short bibliography.

The nature of Oken's system of classification may be illustrated by an example. I therefore give below his classification for the first genus of his fifth tribe (5 *Sippschaft*, 1 *Gattung*), from which I have omitted his descriptions.

⁴ When this letter was originally published, it appeared as Appendix 2 to the Report by Mr. Hemming which is reproduced in paragraph 13 of the present *Opinion*. For reasons similar to those explained in Footnote 1 in relation to Dr. Osgood's original application it has been judged more convenient in preparing this *Opinion* to insert the text of the above letter in its original chronological position.

Classification used by Oken for the first genus of his fifth tribe

5. Sippschaft

1. Gattung. Muffer [The German names—often spaced—are mostly Oken's invention.]

a. Dächse

a. *Meles*, Dachs ;

1. Art. *M. vulgaris*, *Ursus Meles*, *Taxus*, gen. D., Gräving ;
2. Art. *M. americana*, *Ursus labradorius* ;
3. Art. *M. indica* ;

Der lang bekannte *Meles indicus* ist augenscheinlich *Galeopithecus* !

b. Stunk, *Mephitis*, *Viverra*, Stinthier, Muffer ;

1. Art. Zweistreifiger St. [no Latin name cited]

a. Teufelskind oder Stinkthier (*Viv. Mephitis*) ;

b. Yaguara, *Zorilla*, Muffer von Chili ;

Here probably a Muffer from Chili, but the white on frons and occiput broader, more probably Grunzer or Blaser at Magellan's Strait, Stinkfuchse, *Putorius americanus*. Stinkthier in Luisiana, Schweitzer, Ortohula, Teufelskind and *Chinche*. (translation)

c. *Gulo quitensis*, Atok oder Zorra (Fuchs) ;

As the Atok has been placed in *Gulo*, one should expect that its dentition would be the same ; but we doubt it. (translation)

2. Art. Fünfstreifiger St. ; [no Latin name cited]

a. *Putorius americanus striatus* (*Viv. Putorius*) ;

[At the end of the description of colour and habits there occurs—over the page—the name *Putorius americanus striatus* (int'd K.J.)]

b. [Oken made no entry under this sub-item. int'd K.J.]

c. *Conepate* (*Viv. Putorius*) ; [sei the equivalent of the Latin *seu* K.J.] *Coneptl*, amerik. Iltis gestreiften.

3. Art. Einstreifiger St. ; [no Latin name cited]

a. *Cinche* (*Viv. Mephitis*) ; sei Yzquiepatl (schlechthin) ;

b. *Mapurito* (*Viv. Mapurito*) ; . . . sei *Viverra Putorius* ;

[The word "Mapurito" is here used as a specific name. int'd K.J.]

c. Iltis St.

1. Art. Geflekter St. ; [no Latin name cited]

- a. *Mapurito* oder *Mafutiliqui* (*Viv. Zorilla*) ; [The word "Mapurito" is here used as a vernacular name. int'd. K.J.]
[If here *Zorilla*? Query *Zorinna* or *Anna*? (transl.)]
- b. *Chingha* (*Viverra Chingha*) ;
- c. *Zorille* ; sei eine mit *Mafutiliqui* und *Ortohula*

d. Gräving, *Grison* : [The word "Gräving" is slightly spaced. K.J.]

1. Art. Zügel G. ; [no Latin name cited]

- a. *Chinche* (*Viv. vittata*) ; Sei Maikal oder Yagiane.—
- b. *Viverra vittata*, *Grison* :
Mustela gujanensis, Foine von Güana ;
Huron minor, *Martes Grison* :

[Note : The above are not *vittata* but are two additional distinct species, each with its own description. int'd. K.J.]

Perhaps here *Yzquiepatl* (*Viv. Vulpecula*), Teufelskind and Chinche from Brazil. *Grison* (*Viv. vittata*) and *Galera* belong together ?, the former probably here. (translation)

c. Schnopp, *Tayra* :

1. Art. Gelbkehliger Sch. ; [no Latin name cited]

- a. *Mustela barbara*, *Tayra* oder grose Wiesel ;
Einerlei Gr. Marder von Güana, *Must. poliocephalus*.
- b. *M. lanata*, kl. *Foina* von Güana ;
- c. *Mustela canadensis*, *Pekan* ;

There are three animals in Paragay similar to the marten, pine marten and polecat, but larger . . . They are *Huron minor*, *major*, *Yaguare* ; *Huron major* (*Furo m.*) ; *Martes Tayra* ; . . . Is *Mustela barbara* different? It seems to be *Ichneumon de Yzquiepatl* (*Viv. Quasja*), *Pekan* (*Must. canadens.*), kleine *Foina* von Güana (*Must. lanata*), *Tayra* (*M. barbara*). (translation)

2. Art. Schwarzer Sch. [no Latin name cited]

- a. *Yzquiepatl*, seu *Vulpecula quae Maizium torrefactum semulatur colore* (*Viv. Vulpecula*) ;

There are two other small foxes of this sort. One is generally called *Yzquiepatl* . . . The other is called *Conepatl* seu *Vulpecula puerilis*, . . . (translation)

- b. *Stinkthier*, (*Viv. Putorius*)

3. Art. Brauner Sch. ;

Ichneumon de Izquiepatl (Viv. Quasja)

One could put *Coase* here if anteriorly it has five toes.
(translation)

f. Järf, *Gulo*, *Ursus* ;

1. Art. *G. vulgaris*, *Urs. Gulo*, *Hyaena*, *Glouton*, *Rosomak*, Filfrass
(Rahmfrass), Schnopp, gem. J. ;

5. Publication in 1945 of a preliminary notice regarding the present application : In a note dealing with three of the names published in Oken's *Lehrbuch* published in the *Bulletin of Zoological Nomenclature* on 26th July 1945 (*Bull. zool. Nomencl.* **1** : 112—113), Mr. Hemming drew attention to the present application (which at that time it was hoped would shortly be published in the *Bulletin*) and to the question of principle involved in the decision which the Commission would be called upon to take in this case.

Proposal by the late Commissioner C. W. Stiles for the addition to the "Official List of Generic Names in Zoology" of certain names proposed by Brisson (M.J.), 1762, "Regnum animale", and by Oken (L.), 1815—1816, "Lehrbuch der Naturgeschichte"

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

In February 1934 the late Commissioner C. W. Stiles proposed the addition to the *Official List of Generic Names in Zoology* of a long list of names of genera in the Order Carnivora (Class Mammalia). This list was taken from the manuscript of a paper enumerating the parasites for Carnivora. In making this proposal, Commissioner Stiles observed that over 250 of these parasites had also been reported for man and expressed the view that in consequence "it becomes important from a standpoint of public health to establish as firmly as possible the generic names of the animals which harbour these parasites". The paper from the manuscript of which these generic names were taken by Commissioner Stiles was published in December 1934 in *U.S. Nat. Inst. Health Bull.* **163** : 911—1223 (Stiles (C.W.) and Baker (C.E.), "Key-Catalogue of Parasites reported for Carnivora (Cats, Dogs, Bears, etc.) with their possible Public Health Importance").

2. The list of generic names submitted by Commissioner Stiles was considered by the International Commission at their Session held at

Lisbon in September 1935 (Lisbon Session, 4th Meeting, Conclusion 16, for the text of which see 1943, *Bull. zool. Nomencl.* **1** : 41). The Commission then agreed that such of the names in question as had not been objected to by the specialists consulted should be placed on the *Official List of Generic Names in Zoology*. In accordance with this decision, the great majority of the generic names included in Commissioner Stiles's list have since been placed on the *Official List* in an *Opinion*, now awaiting publication.

3. Among the names proposed by Commissioner Stiles for inclusion in the *Official List* were certain names published by Brisson (M.J.), 1762, *Regnum animale*, and by Oken (L.), 1815—1816, *Lehrbuch der Naturgeschichte*. The names in question were the following :—

(i) *Names proposed by Brisson :*

Hyaena Brisson, 1762, *Regn. anim.* (ed. alt.) : 168

Lutra Brisson, 1762, *ibid.* (ed. alt.) : 201

Meles Brisson, 1762, *ibid.* (ed. alt.) : 183

(ii) *Names proposed by Oken :*

Genetta Oken, 1816, *Lehrb. Naturgesch.* **3** (Zool.) (2) : 1010

Grison Oken, 1816, *ibid.* **3** (Zool.) (2) : 1000

Tayra Oken, 1816, *ibid.* **3** (Zool.) (2) : 1001

4. When Commissioner Stiles's list was under consideration, Commissioner Angel Cabrera expressed the view that the acceptance of generic names proposed by Brisson, 1762, *Regnum animale*, and by Oken, 1815—1816, *Lehrb. Naturgesch.* would be contrary to proviso (b) to Article 25, since, in his opinion, neither of these authors in the works concerned "had applied the principles of binary nomenclature". Commissioner Cabrera added, however, that "it would be good to see others' opinions about this".

5. In these circumstances, the six names enumerated in paragraph 3 above have not been included in the *Opinion* referred to above but have been deferred for further consideration. Commissioner Stiles's proposal that these names should be added to the *Official List of Generic Names in Zoology* will be reviewed, when decisions have been taken by the International Commission on the application submitted by Dr. G. H. H. Tate in regard to Brisson, 1762, *Regnum animale* (see page 112 above) and the application submitted by Dr. Wilfred H. Osgood in regard to Oken, 1815—1816, *Lehrb. Naturgesch.*, which will shortly be published in the present journal.

6. **Comment received in 1947 from Mr. T. C. S. Morrison-Scott (British Museum (Natural History), London) :** On 18th January 1947, Mr. T. C. S. Morrison-Scott (*British Museum (Natural History), London*), commented as follows on the question whether,

if Oken's *Lehrbuch* were to be found to be invalid, measures should be taken to validate new names published in it which had come into general use :—

**On the question of the use of generic names published in Oken's
"Lehrbuch der Naturgeschichte" ⁵**

(Extract from a letter, dated 18th January 1947, from
MR. T. C. S. MORRISON-SCOTT, Deputy Keeper, Department of Zoology, British Museum (Natural History) to
the Secretary to the Commission)

I think that the elimination of Oken's *Lehrbuch* would be a very retrograde step, so far as mammals are concerned. At last we are getting some sort of order into things. Works like Allen (1939) *Checklist of African Mammals* and Simpson (1945) *The Principles of Classification and a Classification of Mammals* are the foundations on which we now build and there is a growing feeling among mammalogists that the foundations should not be disturbed. The need for stability in order to take stock of the mass of undigested knowledge overrides the following of rules for the sake of pedantic uniformity—or that is the way I see it.

Both Allen and Simpson use Oken's names—not merely *Pan* but *Panthera*, *Genetta*, etc., and it would be crazy to eliminate these names.

7. Preliminary consideration given to the present application by the International Commission on Zoological Nomenclature at Paris in 1948 : Preliminary consideration was given to the present application by the International Commission at its Session held in Paris in 1948. The following is an extract from the *Official Record* of the Thirteenth Meeting of that Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 17.30 hours (1950, *Bull. zool. Nomencl.* **4** : 365—366) :—

13. THE ACTING PRESIDENT (MR. FRANCIS HEMMING) recalled that the Commission had agreed that the consideration of a proposal submitted by the late Dr. C. W. Stiles (U.S.A.) for the addition to the *Official List of Generic Names in Zoology* of the names

⁵ When this letter was originally published, it appeared as Appendix 4 to the Report by Mr. Hemming which is reproduced in paragraph 13 of the present *Opinion*. For reasons similar to those explained in Footnote 1 in relation to Dr. Osgood's original application it has been judged more convenient in preparing this *Opinion* to insert the text of the above letter in its original chronological position.

of three genera of the Order Carnivora (Class Mammalia) published by Brisson in 1762 in the *Regnum animale* should be postponed until after a decision had been taken by the Commission on the status of generic names published in that work. As explained in the note (file Z.N.(S.) 177) which he (Commissioner Hemming) had published in regard to Dr. Stiles's proposal (Hemming, 1945, *Bull. zool. Nomencl.* 1 : 112—113), Dr. Stiles had at the same time submitted a similar proposal in regard to the names of three genera belonging to the same Order which had first been published by Oken in 1815—1816 in his *Lehrbuch der Naturgeschichte*. The names were of importance in human medicine, for parasites common to Man had been reported from species of each of the genera concerned. It was not possible, however, for the Commission to reach a decision on Dr. Stiles's proposals until they had first decided whether Oken's *Lehrbuch* was a work which complied with the requirements of proviso (b) to Article 25 (requirement that an author must in any given work have applied the principles of binominal (formerly "binary") nomenclature). An application for a ruling on the question of the availability of names first published in Oken's *Lehrbuch* had been submitted to the Commission (file Z.N.(S.) 153) by the late Dr. Wilfred H. Osgood, of Chicago, but had not yet been published in the *Bulletin*. This work contained new names in a wide range of groups in the Animal Kingdom and the new names in it had been accepted by workers in some groups and rejected by others. Doubt as to the status of names published in such a work was most undesirable and should be brought to an end as quickly as possible by an authoritative decision by the Commission. Dr. Osgood, who had been one of the foremost of American zoologists in his forthright criticisms of the slowness of the work of the Commission and, as it seemed to him, of the lack of vision and courage displayed by the Commission in the past, had expressed the view that the manner and spirit in which the Commission tackled the difficult problem presented by Oken's *Lehrbuch* would be looked upon by many zoologists as the touchstone of the capacity of the Commission to deal with difficult problems. From the point of view of reassuring progressive American zoologists regarding the capacity of the Commission to discharge impartially and effectively the duties entrusted to it, it was thus of importance, quite apart from other considerations, that an early decision should be taken by the Commission in this matter. The issues involved were, however, complicated and the consideration of this subject was rendered difficult by the fact that few zoological libraries contained a copy of Oken's *Lehrbuch*.

THE COMMISSION agreed :—

- (1) to take into consideration as soon as possible after the close of the present Session the application submitted by the late Dr. Wilfred H. Osgood (U.S.A.) for a ruling on the availability under Proviso (b) to Article 25 of names first published by Oken, 1816, *Lehrbuch der Naturgeschichte* (file Z.N.(S.) 153) ;

- (2) to invite the Secretary to confer with specialists in the groups concerned on the question of the practice (whether acceptance or rejection) adopted in their respective groups in regard to the *Lehrbuch* names and to submit a Report thereon ;
- (3) pending a decision on the question in (1) above, to defer a decision on the application submitted by the late Dr. C. W. Stiles for the addition to the *Official List of Generic Names in Zoology* of the names of three genera of the Order Carnivora (Class Mammalia) first published by Oken in the work referred to in (1) above (file Z.N.(S.) 177).

8. Completion by Mr. Francis Hemming in August 1950 of the draft of the Report on the present application asked for by the Thirteenth International Congress of Zoology, Paris, 1948 and initiation of further discussions with specialists : In the period immediately following the close of the Thirteenth International Congress of Zoology in August 1948 the entire resources of the Office of the International Commission were devoted for some eighteen months to the preparation and publication of the *Official Record* of the Meetings of the International Commission during its Paris Session and of the Section on Nomenclature of the Paris Congress. Accordingly, it was not until 1950 that it was possible for the Secretary to turn his attention to the present and other cases on which he had been invited by the Paris Congress to submit special Reports. By August 1950, however, Mr. Hemming had completed his Report on the present case. In this Report he reached the conclusion that for the reasons there stated Oken did not apply the principle of binominal nomenclature in his *Lehrbuch der Naturgeschichte* and therefore that new names in that work did not acquire the status of availability under the *Règles* in virtue of having been published therein. Mr. Hemming did not at that time sign the Report which he had prepared, thinking it better first to seek the views of interested specialists on the question whether it would be desirable that some at least of the names published in this work should be validated by the Commission under its Plenary Powers. The specialists so consulted included the following :—

(a) *Dr. Angel Cabrera (La Plata, Argentina) :*

On 20th July 1950, Dr. Angel Cabrera addressed a letter to the Office of the Commission strongly urging

the rejection of Oken's *Lehrbuch* and referring to a paper published in 1949 in which he advocated that course. Dr. Cabrera's letter is reproduced in the immediately following paragraph of the present *Opinion*.

(b) *Dr. George Gaylord Simpson (The American Museum of Natural History, New York) :*

On 24th August 1950, Dr. George Gaylord Simpson wrote as follows :—

The proposal to issue the *Opinion* invalidating Oken's *Lehrbuch* simultaneously with decisions validating selected names from that work seems to me an excellent and practical idea . . . I used some of these names in my *Classification of Mammals*, and in general might hope that the nomenclature used there will survive as far as possible.

(c) *Dr. W. I. Follett (California Academy of Sciences, San Francisco, California, U.S.A.) :*

On 19th January 1951, Dr. W. I. Follett wrote intimating his willingness to examine the names used for genera of fishes in Oken's *Lehrbuch*. As a first step Dr. Follett invited Mr. Norman J. Wilimovsky to make a special study of this question.

9. Comment received in 1950 from Dr. Angel Cabrera (La Plata, Argentina) : On 20th July 1950, Dr. Angel Cabrera (*La Plata, Argentina*) addressed the following letter to the Secretary setting out his views on the question of the status under the *Règles* of Oken's *Lehrbuch* :—

**On the question of the status of names in Oken, 1815—1816,
“Lehrbuch der Naturgeschichte ” 3 (Zoologie)⁶**

By ANGEL CABRERA

(*La Plata, Argentina*)

(*Extract from a letter dated 20th July 1950 from DR. CABRERA
to the Secretary to the Commission*)

I have read very attentively the fourth volume of the *Bulletin of Zoological Nomenclature*. The question about the names in Oken's

⁶ When this letter was originally published, it appeared as Appendix 3 to the Report by Mr. Hemming which is reproduced in paragraph 13 of the present *Opinion*. For reasons similar to those explained in Footnote 1 in relation to Dr. Osgood's original application it has been judged more convenient in preparing this *Opinion* to insert the text of the above letter in its original chronological position.

Lehrbuch interests me very much. I received some time ago your request regarding my paper on this subject, but unfortunately I had not myself a copy of this paper and was therefore forced to ask for one from Mexico, where it was published seven years ago (in *Ciencia* 4 (Nos. 4-5) published on 20th October 1943).

My reasons for rejecting Oken's names are similar in every way to those advanced by Hershkovitz in 1949 (*J. Mammal.* 30 : 289—301). The following is a translation of a part of my paper :—

Though this book [Oken's *Lehrbuch*] was published in 1816, naturalists in general ignored Oken's names until 1902, when J. A. Allen gave a list of those which, in his opinion, ought to be accepted in Mammalogy. He did not do so, however, without giving the warning that Oken was "erratic and irregular in nomenclatorial matters" and that his manner of naming animals was "sadly defective when tried by the nomenclatorial uses of today". From that date, however, North American zoologists began to use these names, and their example was soon followed by the Europeans. A noteworthy exception was Paul Matschie (1904), who rejected them on the ground that Oken never followed the true binary nomenclature, a very important opinion, coming, as it did, from a fellow-countryman of the author under criticism. Many years afterwards, when studying the nomenclature of the apes, Stiles and Orleman (1927) expressed the same views . . . As said by Stiles and Orleman, the author of a book or publication must be "consistently binary and consistently binominal" in order that the names in his book may be accepted. Indeed, if an author does not practise binary and binominal nomenclature, it would be absurd to accept one or two of his names, merely because they are accidentally formed of two words. This being so, it is not possible to consider Oken as an author applying the principles of binary nomenclature in his *Lehrbuch* . . . Some of Oken's genera (*Gattungen*) have a name composed of two words in violation of the principle established by Linnaeus and now embodied in Article 8 of the *Règles*. Among the genera of fishes, there is one named "*Regalecus lanceolatus*" and another has as its name "*Lepidopus goranensis*". Many of the genera have not even a technical name, being cited only under the vernacular German name, such as "*Schlenderschwanz*" among reptiles and "*Muffer*" among mammals. In the genus "*Lepidopus goranensis*" there is found a species named "*Botrichthys sinensis*", whereas the name of another is "*Botrichthoides oculatus*". The genus of reptiles "*Schlenderschwanz*" include the species "*Stellio Lacerta caudiverbera*", "*Stellio fimbriatus*" and "*Stellio tetradactylus*", while later another genus is named *Stellio* and contains other different species . . . Oken's specific names are frequently binominal, but many of them are trinominal and even plurinominal. Thus, the orang-outang appears as "*Faunus indicus, rufus*". If we do not see here a trinominal denomination, we shall be forced to regard this

expression not as a name at all, but as an abbreviated description such as those used by Seba, Brisson, etc. In the genus *Cercopithecus*, we find similar instances ; among its species there is a "*Cercopithecus angolensis major*", a "*Cercopithecus angolensis alius*" and a "*Simia nigra magnitudinis mediae*".

Other examples given in my paper are the same as those pointed out by HersHKovitz. To sum up, I conclude by saying that Oken's nomenclature "is merely an irregular mixture of generic names, sometimes in Latin and sometimes in German, indistinctly composed of one or of two words, with specific names as often binominal as uninominal or polynominal. It is impossible, in my opinion, to use the names belonging to such a system of nomenclature, if we reject those given by Frisch, Gronow or Catesby. To accept these names as valid, in clear breach of the principles of Article 25 of the *Règles Internationales*, would be to declare the futility of the *Règles* themselves or, at least to agree with those that ignore them".

10. Publication in 1952 of an appeal by the Secretary to specialists for advice : In the winter of 1951/1952, Mr. Hemming decided to publish in the *Bulletin of Zoological Nomenclature* a series of brief Reports on each of the cases which had been referred to him for study by the Thirteenth International Congress of Zoology, Paris, 1948. These Reports were published on 15th April 1952. The Report on the present case was as follows (Hemming, 1952, *Bull. zool. Nomencl.* 7 : 195—196) :—

**Case 1 : Status of names published in Oken (L.), [1815—1816],
"Lehrbuch der Naturgeschichte"**

3. A comprehensive Report on the status of names, as published in 1815—1816 in the *Zoologie* volume of Lorenz Oken's *Lehrbuch der Naturgeschichte*, has been prepared in consultation with interested specialists and will be published in an early Part of the *Bulletin of Zoological Nomenclature*.⁷ In addition, steps are being taken to obtain from specialists their views as to which of the Oken names ought in the interest of stability and for the purpose of avoiding confusion, to be preserved with priority as from Oken in the event of its being decided that from the nomenclatorial standpoint Oken's *Lehrbuch* is not an acceptable work. It would be particularly helpful if specialists in as many groups as possible would co-operate with the Commission by sending statements of their views on the foregoing subject, so far as concerns names of genera and/or species in their own groups. Such information will be of great value, in whichever sense the International Commission answer the question raised in the present case, for, if it is decided that the *Lehrbuch* is an acceptable work, it will be possible at once to place on the *Official List* generic names so submitted by specialists.

⁷ The Report here referred to is reproduced in paragraph 13 of the present *Opinion*.

11. Comments from Dr. W. E. China (British Museum (Natural History), London), Mr. Francis Hemming (London) and Dr. Angel Cabrera (La Plata, Argentina) elicited by the appeal for advice issued to specialists by the Secretary in 1952 : The appeal for advice addressed to specialists in the note published in 1952 (paragraph 10 above) elicited the following communications :—

- (a) Comment by Dr. W. E. China (*British Museum (Natural History), London*) (statement furnished under cover of a letter dated 21st April 1952) :

The invalidation of Oken's 1815—1816 work is immaterial to hemipterists since all the generic names listed are of prior origin. No nomenclatorial changes will be necessary whether this work is accepted or not.

- (b) Comment by Mr. Francis Hemming (*London*) (letter dated 1st June 1952) :

So far as the nomenclature of the butterflies is concerned, Oken's *Lehrbuch* is not of importance. There are few new generic names in this work in this group and without exception those names are already invalid for other reasons. There are therefore no Oken names in current use in the butterflies. If there had been such names, I should certainly have advocated their validation by the Commission under its Plenary Powers in accordance with the procedure laid down for adoption in such cases by the International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 65, Point (3)(iii)), a procedure which appears to me to be of great value for promoting stability in nomenclature and avoiding vexatious and unnecessary name-changing.

- (c) Comment by Dr. Angel Cabrera (*La Plata, Argentina*) (statement dated 22nd June 1952)⁸:

Both as a mammalogist and as a member of the International Commission, I am openly against all and every one of the Mammal names in Oken's *Lehrbuch*. This book has been deemed unavailable for nomenclatorial purposes by Matschie, by Stiles and Orleman, and by myself, and as to the names of Mammalia in it, they have been thoroughly discussed by Herschkovitz (1949, *Journ. Mamm.* 30 : 289), who arrives to the same negative results. A significant fact about these

⁸ The statement here reproduced is in the nature of a supplement to the comment furnished by the same specialist in July 1950, reproduced in paragraph 9 of the present *Opinion*.

names is that they were apparently ignored by every specialist until 1902, when J. A. Allen (*Bull. amer. Mus. nat. Hist.* **16** : 373) revived several of them, although, curiously enough, he considered Oken's peculiar nomenclature to be "erratic and irregular". I am quite in accordance with all the Herschkovitz's conclusions. Moreover, about the suggested possibility of preservation of some names "with priority as from Oken", I can't see how we can include in *Zoological Nomenclature* a name as from a book nomenclatorially unavailable without incurring an absurd contradiction. If a work is declared unavailable for nomenclatorial purposes and we use the names published in it, in order "to avoid confusion" or under any other pretext, what does "unavailability" mean and where is the utility of that declaration?

12. Comment by the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists : On 12th June 1953, Dr. W. I. Follett (*California Academy of Sciences, San Francisco, California, U.S.A.*) transmitted to the Office of the Commission a report dated 5th June 1953 on the status of names in Oken's *Lehrbuch* which at his request (paragraph 8(c) above) had been prepared by Mr. Norman J. Wilimovsky (*Stanford University, Stanford, California, U.S.A.*). In this report Mr. Wilimovsky recommended (a) that Oken's *Lehrbuch* "be ruled unavailable from a nomenclatorial standpoint" and (b) that "any new generic names which properly date from this particular work by Oken and which are in long established use be placed on the list of *nomina conservanda*". In forwarding this report, which is reproduced below, Dr. Follett added that the recommendations embodied in it "are hereby adopted as those of the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists" :—

Report on the status of names in Oken's "Lehrbuch"

Herewith is the report on Oken's *Lehrbuch der Naturgeschichte*. I have spent a very considerable time going over your typewritten copy of this rare volume. The task has not been as simple as we first suspected. Any simple check of the italicized names contained in Oken with some standard nomenclature such as Neave did little to answer any question whether or not this work should be retained from a nomenclatorial point of view.

Volume Three of Oken's *Lehrbuch* comprises the fishes. His nomenclatorial style is somewhat confusing. Even the rather helpful paper of J. A. Allen (1902, *Bull. amer. Mus. nat. Hist.*, **14** : 373—379) which gives some insight as to the nomenclatorial technique of Oken did not solve important points as whether an italicized word was meant as a generic name or merely a common name. Oken's work, in my estimation, is not consistently binomial, but this problem of binomiality does not compare with the difficulty in determining whether a series of names, some italicized and some not, is meant as a series of common descriptive terms or whether Oken is introducing a set of alternate generic and/or specific names as he sometimes did.

Oken's 1816 *Lehrbuch* contains about 295 generic names. Of these, some 17 (or almost 6 per cent.) are emendations for other generic names proposed therein for the first time. Apparently, some 19 names are proposed for the first time. These 19 generic names, or about 6½ per cent. of the total nomenclatorial content, are those with which we are primarily concerned, and should be the basis upon which we decide whether or not to retain this particular work of Oken's as nomenclatorially valid.

Under the principle of priority the retention of Oken's work would mean changing a number of well-established generic terms. For example, the genus *Pholis* would require another name as we now understand it. On the other hand, a number of generic names which are currently well established were originally proposed by Oken (i.e., *Bodianus*, *Lampetra*, *Lonchiurus*), although several of these terms are currently ascribed to other authors. In many instances, the contents of the genera as "defined" by Oken are not comparable to our current viewpoints regarding these genera.

Therefore, in view of this situation, I respectfully recommend to you that you suggest to the International Commission that Oken's 1816 *Lehrbuch der Naturgeschichte* be ruled unavailable from a nomenclatorial standpoint. Secondly, I suggest that any new generic names which properly date from this particular work by Oken and which are in long established use be placed on the list of nomina conservanda. This latter action of course will require that the list of new generic terms proposed in this work be reviewed by a panel of "specialists". If this latter action is deemed advisable, I shall be most happy to furnish a list of those generic names which I believe were proposed for the first time in this work. I have purposely refrained from mentioning too many of the generic names in Oken's book for obvious reasons.

13. Report submitted by Mr. Francis Hemming in response to an invitation by the Thirteenth International Congress of Zoology, Paris, 1948 : The present case was reviewed in the early part of 1954 by Mr. Francis Hemming, who concluded (a) that, having regard to the fact that nearly two years had elapsed since the

publication of his appeal to specialists for advice, it was likely that the comments received constituted a representative sample of opinion among zoologists regarding the status of Oken's *Lehrbuch* and (b) that, although, if it had been practicable, it would have been advantageous for the Commission to deal simultaneously with (i) the status of the above work and (ii) the validation, if that work were to be rejected, of any generic names in it that were in common use, the adoption of this procedure in the present case would greatly increase the considerable delay which had already occurred in obtaining a decision from the Commission on the central issue involved, namely, whether generic names published in Oken's *Lehrbuch* were to be accepted as having acquired the status of availability under the *Règles* by reason of having been so published. Accordingly, Mr. Hemming proceeded to complete the Report, the first draft of which he had prepared in 1950 (paragraph 8 above). The Report so completed, which was signed by Mr. Hemming on 9th March 1954, was as follows :—

**Report on the status of new names published in Oken, [1815—1816],
“*Lehrbuch der Naturgeschichte*”**

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

(Reference : Official Record of Proceedings of the International Commission on Zoological Nomenclature, Paris Session, 13th Meeting, Conclusion 13)

I. Introductory

In pursuance of the request addressed to me by the International Commission on Zoological Nomenclature at the third of their Meetings held during their Paris Session on Monday 26th July 1948 (Paris Session, 13th Meeting, Conclusion 13), I submit herewith for the consideration of the Commission and of interested zoologists generally the following Report on the question of the status of new names published in Oken's *Lehrbuch der Naturgeschichte*, Volume 3 (Zoologie), issued in two *Abtheilungen*, of which the first (“*Fleischlose Thiere*”, pp. xxviii, 842, xviii, iv, 40 pls.) appeared in 1815 and the second (“*Fleischthiere*”, xvi, 1270 [2], 1 *tab*, with pp. 843—50 supplementary to *Abth.* 1) in 1816.

2. An authoritative statement on the status of new names in the *Lehrbuch* is long overdue, for there has been great diversity of practice among zoologists in regard to this matter, specialists in some branches (particularly in mammalogy) having in recent decades taken to using some or all of these names, while specialists in other groups have

largely ignored this work. The late Dr. Wilfred H. Osgood of Chicago therefore rendered a valuable service when in 1944 he invited the International Commission on Zoological Nomenclature to give an authoritative ruling on this subject.

3. It was evident from the outset that considerable difficulties must be anticipated, whatever the decision taken by the Commission. If the Commission were to rule that in the *Lehrbuch* Oken had complied with the requirements of the *Règles*, a great deal of work would be involved in many groups in determining the application of the numerous names which would then be seen to possess availability either as generic or subgeneric names and, in view of the early date of the *Lehrbuch*, there was every likelihood that this investigation would show that some, possibly many, of the Oken names were applicable to, and were the oldest names for, genera for which later names were in common use. If, on the other hand, the Commission were to rule that in the *Lehrbuch* Oken had not complied with the requirements of the *Règles*, then also it was evident that well-known genera currently known by Oken names would be found to require new names under the Law of Priority. In either case therefore it was certain that important issues affecting the stability of nomenclature were involved in the status to be accorded to names published in the *Lehrbuch*.

4. At the time when Dr. Osgood submitted his application, it would have been difficult, if not impossible, for the Commission to reach a conclusion on this matter, for a large part of the arguments which had been advanced for and against the acceptance of Oken's names turned on the meaning to be attached to the expression "nomenclature binaire" which then figured in Proviso (b) to Article 25. This latter problem, which formerly had been the cause of much controversy, was, at the time of the receipt of Dr. Osgood's application, *sub judice*, the Twelfth International Congress of Zoology at its meeting held at Lisbon in 1935 having decided that it was essential that this matter should be settled once and for all at the next (Thirteenth) International Congress and having, to this end, instructed the Commission to prepare a comprehensive Report on this subject for consideration by the Thirteenth Congress.

5. The question of the meaning of the expression "nomenclature binaire", the settlement of which was—as already explained—a prerequisite to the consideration of the status of Oken's *Lehrbuch* names was disposed of by the Thirteenth International Congress of Zoology in Paris in July 1948. On the unanimous recommendation of the Commission, with the equally unanimous support of the Section on Nomenclature, the Congress, after ruling that the foregoing expression had a meaning identical with that of the expression "nomenclature binominale", decided to delete from Proviso (b) to Article 25 (and also from Article 26) the expression "nomenclature binaire" and to replace it by the expression "nomenclature binominale" (see 1950, *Bull. zool. Nomencl.* 4 : 63—66). At the same time the Congress recognised that, where under the foregoing clarification of the *Règles*,

it became evident that a given book did not satisfy the requirements of Article 25, rapid use by the Commission of its Plenary Powers would be needed to prevent instability from arising in the nomenclature of any group in which names first published in the book concerned were in common use. For this purpose, the Congress decided that in such cases the prescribed period of waiting might be waived by the Commission which should therefore be free at once to act for the purpose of preventing well-known names from being discarded in favour of names hitherto treated as synonyms (*see* Proceedings of the Commission, Paris Session, 4th Meeting, Conclusion 13(3)(a)(iii), published in 1950, *Bull. zool. Nomencl.* 4 : 65).

6. Later during its Paris meeting the Thirteenth Congress approved also a recommendation that words should be inserted in the *Règles* making clear the meaning of the expression “les principes de la nomenclature binominale” as used in Proviso (b) to Article 25 (as amended earlier during the Congress). As so clarified, Proviso (b) to Article 25 provides that, in order to qualify as having applied “les principes de la nomenclature binominale” in any given work, an author must have consistently applied those principles in the book in question and not merely in a particular section or passage (*see* 1950, *Bull. zool. Nomencl.* 4 : 175). The purpose, and the effect, of this clarification of Article 25 is to make it clear that, when an author who does not use a binominal system of nomenclature nevertheless here or there in a given work applies to some species a name which, by reason of consisting of two words only, happens to constitute a binominal combination, the name in question is not to be treated as acquiring availability under the *Règles*.

7. The late Dr. Osgood's application regarding the status of names published in Oken's *Lehrbuch* was considered by the Commission at the third of its meetings held on Monday, 26th July 1948 (*see* 1950, *Bull. zool. Nomencl.* 4 : 365—366). In the discussion which then took place stress was laid upon the importance and urgency of the problem submitted by Dr. Osgood. It was then explained that the application had not been published in the *Bulletin of Zoological Nomenclature* (1950, *Bull. zool. Nomencl.* 4 : 365) ; nor has it since been published, as it was considered that it would be more convenient if publication were to be delayed until the present Report was also available. It is now annexed as Appendix I.⁹ At the Paris meeting it was felt that a further opportunity for study was desirable, in which to examine the situation anew in the light of the decisions that had just been taken to amend and clarify Proviso (b) to Article 25. The situation was complicated both by the diversity of practice among zoologists in different parts of the Animal Kingdom and by the fact that, owing to its rarity, relatively few zoologists had had an opportunity of studying Oken's *Lehrbuch* at first hand. The Commission therefore agreed (a) to take into consideration Dr. Osgood's application in regard to Oken's *Lehrbuch* as soon as possible after the close of the Paris Congress, and (b), for the purpose of facilitating that consideration, to invite the

⁹ See Footnote 1.

Secretary to confer with specialists on the question of the practice (whether acceptance or rejection) adopted in their respective groups, and to submit a Report thereon.

II. On the question whether in the “*Lehrbuch der Naturgeschichte*” Oken consistently applied the principles of binominal nomenclature

8. In the early part of 1944, shortly before the receipt of Dr. Osgood's application in regard to the status of names in Oken's *Lehrbuch*, I had occasion myself to investigate this matter in connection with a proposal submitted to the Commission by the late Dr. C. W. Stiles that the names of genera of the Order Carnivora from species of which had been reported parasites common to Man should, because of their importance from the point of view of Public Health, be added to the *Official List of Generic Names in Zoology*. For among the names which thus became candidates for admission to the *Official List* there were three Oken names (*Genetta* Oken ; *Grisson* Oken ; *Tayra* Oken).¹⁰ At that time the principal scientific libraries had been evacuated from London to avoid risk of destruction by air-raids and it was therefore not possible for me personally either to examine the entries in Oken's *Lehrbuch* in regard to the foregoing names or to review the conclusions in regard to the status to be accorded to that work which I had formed when before the outbreak of war I had had occasion to consider this question in the course of my survey of the generic names of the butterflies. There was, however, as I knew, a copy of the *Lehrbuch* in the library of the Zoological Museum, Tring, and I accordingly sought the assistance in this matter of Dr. Karl Jordan, at that time the President of the International Commission. Dr. Jordan at once undertook to investigate this matter and in a letter dated 10th June 1944 he very kindly furnished a detailed Report. This Report is annexed to the present Report as Appendix 2.¹¹ At the same time I took the view that the general problem of the status of new names published in Oken's *Lehrbuch* (which had been raised by Dr. Osgood) and the particular problem of how to stabilise the names of the three genera of Carnivora from which parasites common to Man had been reported and for which names had been published by Oken in the *Lehrbuch* (which had been raised by the late Dr. Stiles) were of such importance that they should at once be brought to the attention of interested specialists, even though the war conditions then obtaining would inevitably render such a consultation only preliminary in character. I accordingly prepared a short note on this subject, which, however, owing to the long delays in printing inevitable at that time was not actually published until July 1945 (*Bull. zool. Nomencl.* 1 : 112—113).¹⁰

9. The general character of Oken's *Lehrbuch* is well illustrated by the analysis given by Dr. Jordan of the treatment accorded by Oken to what he called the first genus (1 Gattung) of his fifth tribe (5 Sippschaft). The genus is divided into six groups ; no Latin name is applied

¹⁰ See paragraph 5 of the present *Opinion*.

¹¹ See paragraph 4 of the present *Opinion*.

to the genus which has for its title only the German word "Muffer". Of the six groups into which the genus is divided four are headed both by a vernacular name and by a Latin noun, one is headed by a vernacular name (Stunk) and by two Latin nouns (*Mephitis* and *Viverra*), while the third group has only a vernacular name (Iltis). When we come to examine the terms applied to species (Arten), we find an equal lack of consistency of treatment. In the first group (*Meles*, Dachs) of the genus, each of the three species recognised is given an apparently binominal name, the first part of which consists of the word *Meles*. When we come to the second group (Stunk, *Mephitis*, *Viverra*), we find that each of the three species recognised is given a vernacular German name only (Zweistreifiger St. ; Fünfstreifiger St. ; Einstreifiger St.). Finally we have to note that each species is in turn subdivided, the appellations given to these subdivisions being of every possible variety, e.g. (a) vernacular names such as Teufelskind ; (b) a vernacular word followed by a Latin noun (which may be either a generic name or a univocal Latin specific name in the manner of Gesner and other writers of the pre-1758 age), an example of this kind being provided by the second subdivision of the first species of the second group (Stunk) of the genus "Muffer", where we find the entry "Yaguare, Zorills, Muffer" ; (c) a Latin binominal name such as *Gulo quitensis* (first species, third subdivision) ; and (d) a Latin trinominal name such as *Putorius americanus striatus* (second species, first subdivision).

10. The examples cited above show (1) that the system of nomenclature used by Oken in his *Lehrbuch* is utterly lacking in consistency ; (2) that it consists of the random use of Latin words and vernacular German words for the various categories recognised ; (3) that even if the terms applied to the genus (*Gattung*) and species (*Arten*) are disregarded, there is absolutely no consistency in the use of the terms employed to denote the units into which the various species are subdivided, it being apparently pure chance whether (i) a vernacular German word or (ii) such a word cited in conjunction with a Latin noun or (iii) a binominal combination of the Linnean type or (iv) a trinominal of the pre-1758 kind is used to denote the taxonomic unit in question.

11. In these circumstances I have no hesitation in reporting that in Volume 3 (Zoologie) of the *Lehrbuch der Naturgeschichte* Oken did not apply "les principes de la nomenclature binominale". Accordingly, no name appearing in the above volume of the *Lehrbuch* acquired any availability under the *Règles* in virtue of having been so published.

12. I have further to add that, prior to the clarification of Proviso (b) to Article 25 of the *Règles* by the Thirteenth International Congress of Zoology in Paris in 1948, the question of the availability of the names in Oken's *Lehrbuch* was examined by a number of authorities who rejected the claims advanced in favour of those names by Allen (J.A.) (1902), notwithstanding the fact that, before the Paris Congress, the presence in Proviso (b) of the ambiguous expression "nomenclature binaire" offered some scope for the defence of those names,

which has disappeared now that that expression has been replaced by the unequivocal expression "nomenclature binominale". These authorities include : (1) Stiles (C.W.) & Orleman, 1927, *Hyg. Lab. Bull.* **145** ; (2) Cabrera (A.), 1943, *Cienca* **4** (Nos. 4—5) ; Hershkovitz (P.), 1949, *J. Mammal.* **30** : 289—301. Of these authorities Dr. Cabrera, who is himself a member of the Commission, has kindly furnished me with a supplementary statement of his views, together with extracts from the salient portions of his paper of 1943. This statement is annexed to the present Report as Appendix 3.¹²

III. On the effects of alternative treatments to be accorded to the names published in Volume 3 (Zoologie) of Oken's "Lehrbuch der Naturgeschichte" on stability in nomenclature

13. The late Dr. Osgood pointed out that a number of names which first appeared in volume 3 (Zoologie) of Oken's *Lehrbuch der Naturgeschichte* had come to be commonly accepted for well-known and important genera, instancing in this connection in the Class Mammalia the names *Citellus* Oken (for the very large group of ground squirrels of Asia and America), *Panthera* Oken (as a subgeneric name for the large cats, including the lion, the tiger, the leopard and others) and *Thos* Oken for the jackals.¹³ Dr. Osgood himself (as he made clear in his letter to me of 13th September 1944, an extract from which is appended to his application)¹⁴ was strongly opposed to the acceptance of Oken's names but his references to the generic names cited above, coupled with the concluding remarks in his application, where he referred to the Commission's Plenary Powers, suggests that he had in mind that the Commission, when rejecting Oken's *Lehrbuch*, should make use of its Plenary Powers to preserve those of Oken's names which had taken deep root in the literature of mammalogy.

14. If such were in fact the ideas which Dr. Osgood had in mind, he only anticipated by a few years the view widely held and strongly expressed both within the Commission and in the general body of the Section on Nomenclature of the Paris and Copenhagen Congresses that means should be found for preventing decisions on purely technical nomenclatorial matters from having the effect of upsetting well-established names. It was indeed because the Paris Congress recognised that the declaration against the availability of non-binominal works that had hitherto been accepted (in whole or in part) on the ground that the nomenclature used therein, though not "binominal" was "binary" and therefore acceptable under the *Règles* might in some cases lead to the upsetting of well-known names that it took the action already described (paragraph 5) for simplifying the procedure to be followed by the Commission when using its Plenary Powers for the

¹² See paragraph 9 of the present *Opinion*.

¹³ See paragraph 1 of the present *Opinion*.

¹⁴ See paragraph 2 of the present *Opinion*.

purpose of validating generic names found to be invalid consequent upon the final rejection of the argument that the expression "nomenclature binaire" possessed a wider meaning than the expression "nomenclature binominale".

15. Oken's *Lehrbuch* being, in my opinion, a book which must be rejected as not satisfying the requirements of Proviso (b) to Article 25 (paragraph 11), it is necessary to consider whether any of the Oken names which, on the foregoing argument, are seen to be unavailable are nevertheless in such widespread use as to call for preservation under the Plenary Powers. This is a matter on which, for each group of the Animal Kingdom, only the specialists in that group are qualified to express an opinion. In the case of mammalogy it is already evident, however, that some authorities would be strongly opposed to the elimination of certain well-known Oken names now commonly used for important genera. Among these may be numbered first the late Dr. Osgood himself who would certainly have objected to the elimination of the names *Citellus*, *Panthera* and *Thos* (paragraph 13). Second, Mr. T. C. S. Morrison-Scott (Deputy Keeper, Department of Zoology, British Museum (Natural History), London), with whom and Dr. Edward Hindle (Scientific Director, Zoological Society of London) I had correspondence in 1946 and 1947 regarding the name *Pan* Oken as applied to the chimpanzee, has expressed himself as strongly opposed to the entire elimination of Oken's generic names for mammals. The relevant part of Mr. Morrison-Scott's letter is annexed to the present Report as Appendix 4.¹⁵ As will be there noted, Mr. Morrison-Scott points out that some of Oken's generic names have been accepted in such important works as Allen (G.M.), 1939, *Checklist of African Mammals* and Simpson (G.G.), 1945, *The Principles of Classification and a Classification of Mammals*.

16. Where a book fails to satisfy the requirements of Article 25, but the names in it are in general use or, if not all in use, can readily be assigned to their appropriate position in synonymy, it would be possible for the Commission to secure stability in the nomenclature in the group concerned by validating the whole book under its Plenary Powers. Accordingly, any name in such a book which was the oldest available name for a given genus would become the valid name for that genus, while names applicable to genera, for which there were older available names would disappear in synonymy. Theoretically, it would be possible for the Commission, if it so thought fit, to deal with Oken's *Lehrbuch* in this manner, that is, to validate it under the Plenary Powers. In fact, however, the adoption of this course would cause as much instability in nomenclature as would the disappearance of the Oken names, for the *Lehrbuch* would then need to be examined systematically, page by page, by specialists in all groups in the Animal Kingdom, since, although some Oken names have been brought into use, there are many more names included in the *Lehrbuch* which have

¹⁵ See paragraph 6 of the present *Opinion*.

been completely ignored and which it would then be necessary to take into account. This would be an extremely complicated and difficult task in view of the utter lack of consistency shown by Oken in the terminology applied by him to the species described in the *Lehrbuch*. This is well illustrated by the example given in the Report prepared by Dr. Jordan (Appendix 2).¹⁶ The virtual impossibility in many cases of determining whether a name was used as a generic name or was a trivial name printed with a capital initial letter would lead to endless difficulty in determining the status of the names in question, and at times would be virtually certain to lead to such confusion that the use of the Plenary Powers would be necessary to suppress the name in question. Moreover, even if ultimately, with occasional help from the Commission, the generic names employed in Oken's work could be reduced to some kind of order, there would still remain the difficulty presented at the species level of the treatment to be accorded to the specific names used by Oken, for (as already explained) though many of these are binominal (e.g. *Gulo quitensis*, the name for one of the sub-units of Species 1 in Division "b" of the first genus of the fifth Sippschaft), many also are trinominals (e.g. *Putorius americanus striatus*, the term applied to the first sub-unit of the second species of the same Division of the genus referred to above). I conclude therefore that any action to be taken by the Commission to secure availability for those of Oken's generic names which are in common use should certainly not take the form of using the Plenary Powers to validate Oken's *Lehrbuch* as a whole, for that course would give rise to more numerous and more serious difficulties than would follow from the rejection of the *Lehrbuch* under the normal operation of the *Règles* and would be calculated to cause far greater instability and confusion in nomenclature.

17. If therefore express action is to be taken to prevent the confusion and instability which would follow the elimination in synonymy of certain of Oken's generic names, that action must, it is suggested, be selective in character and directed exclusively towards meeting the particular ends in view. Fortunately, it is possible in this matter to draw upon the precedent set by the Commission when dealing with the very similar problem presented by the generic names used for insects by Geoffroy (E.L.) in his celebrated *Histoire abrégée des Insectes qui se trouvent aux Environs de Paris*, an admittedly non-binominal work published in 1762, many of the generic names published in which are, however, in general use. The problem presented by this book was considered by the Commission in Paris (Paris Session, 13th Meeting, Conclusions 14—16) (see 1950, *Bull. zool. Nomencl.* 4 : 336—370), and the decision then taken is, I consider, extremely relevant to the consideration of the action to be taken in regard to the *Lehrbuch* of Oken. The action taken by the Commission as regards Geoffroy's *Histoire abrégée* was threefold in character : (1) the Commission

¹⁶ See paragraph 4 of the present *Opinion*.

declared that this work did not satisfy the requirements of Article 25 and therefore that names appearing in it were not available under the *Règles*; (2) the Commission at once used its Plenary Powers to validate one of the most important names thus found to be invalid (*Corixa* Geoffroy); (3) the Commission placed on record its view that "certain of the generic names published in the foregoing work, being in wide use, should certainly be validated in the interests of stability in nomenclature". In accordance with the last of these conclusions the Commission invited me, as the Secretary to the Commission, to confer with specialists in the various Orders of insects concerned, with a view to "the submission to the Commission" of "proposals for the validation, under the Plenary Powers, of such of the names concerned, the rejection of which would lead to instability or confusion in the nomenclature of the group in question, so that, in the light of the statements so received, the Commission may validate such of the names concerned as may appear to it to be appropriate". The adoption of a similar procedure in the case of generic names published by Oken in his *Lehrbuch*, when these are found to be in general use, would seem to me to be both highly appropriate and extremely desirable.

18. In addition to the names of the three genera of Carnivora published by Oken on which (as explained in paragraph 8 above) there is an outstanding application by the late Dr. C. W. Stiles, the Commission has had before it for some time an application (Z.N.(S.) 261) submitted by Professor Harold Kirby (*University of California, Berkeley, California, U.S.A.*) for the validation, under the Plenary Powers, of the generic name *Stentor* Oken, 1815 (Class Ciliophora). In agreement with Professor Kirby, the publication of this application was deferred until it could be published at the same time as the present Report. It is accordingly now published immediately after the present Report.¹⁷

19. In March 1952 I issued a general appeal to specialists to furnish statements of their views on the question of the availability of names published in Oken's *Lehrbuch* and at the same time to furnish particulars of any generic names published by Oken currently in use in their respective groups which, in their opinion, ought to be preserved, if the Commission were to rule that in his *Lehrbuch* Oken did not satisfy the requirements of Article 25 and therefore that no name published in that work acquired the status of availability in virtue of having been so published (Hemming, 1952, *Bull. zool. Nomencl.* 7 : 195—196).¹⁸ None of the specialists who responded to the foregoing appeal considered that Oken's *Lehrbuch* was a nomenclatorially available work. A number of these specialists, however, furnished particulars relating to individual Oken names in common use for genera in their own groups which they recommended should be validated under

¹⁷ For the decision of the International Commission in regard to the name *Stentor* Oken see *Opinion* 418.

¹⁸ The text of the appeal here referred to has been reproduced in paragraph 10 of the present *Opinion*.

the Plenary Powers, in order to prevent the disturbance and confusion in nomenclature which would otherwise be inevitable. These applications will be published in the *Bulletin* as soon as possible.

Summary of Conclusions

20. In the light of the evidence examined, and of the considerations advanced in the present Report, I now summarise, as follows, the conclusions which I have formed on the subject of the availability of the names published in the period 1815—1816 in Volume 3 (Zoologie) of Oken's *Lehrbuch der Naturgeschichte* :—

- (1) In Volume 3 (Zoologie) of the *Lehrbuch der Naturgeschichte* which was published in the period 1815—1816, Oken did not apply the principles of binominal nomenclature, as required by Proviso (b) to Article 25 of the *Règles*, as clarified by the Thirteenth International Congress of Zoology, Paris, 1948 (paragraphs 9—10).
- (2) In consequence of (1) above, no name published by Oken in the foregoing work acquired any status in zoological nomenclature in virtue of having been so published (paragraph 11).
- (3) In some groups of the Animal Kingdom, e.g. in mammalogy, certain generic names are commonly accepted with priority from Oken's *Lehrbuch*. In some cases genera to which these names are applied are well known and of wide distribution. The elimination of the Oken names for these genera would lead to instability and confusion in the nomenclature of the groups concerned (paragraphs 13—15).
- (4) Availability for the Oken generic names now in common use could be provided by the use by the Commission of its Plenary Powers to render Volume 3 of Oken's *Lehrbuch* available under the *Règles* and thus to validate *en bloc* the new names published in that book. The adoption of this course in the case of Oken's *Lehrbuch* would, however, be open to strong objection, for the nomenclature employed by Oken in that work is so confused that the grant of availability to that work as a whole would be bound to give rise to numerous and serious difficulties by reason of the large number of names introduced by Oken which have hitherto been ignored (paragraph 16).
- (5) Availability could be secured for such of Oken's generic names as are in common use and the disappearance of which in synonymy would give rise to instability and confusion by the selective use by the Commission of its Plenary Powers, in the same way that the Commission has already decided to use those Powers in relation to the parallel case of the generic names published

in 1762 by Geoffroy (E.L.) in his *Histoire abrégée des Insectes qui se trouvent aux Environs de Paris*. This is the course which I recommend should now be taken (paragraph 17).

FRANCIS HEMMING,

*Secretary to the International
Commission on Zoological Nomenclature*

Secretariat of the Commission :

28 Park Village East,
Regent's Park,
LONDON, N.W.1, England.

9th March, 1954.

Appendix 1¹⁹

Application relating to the status of the names in Oken's *Lehrbuch der Naturgeschichte* submitted to the International Commission on Zoological Nomenclature by Dr. Wilfred H. Osgood in May 1944.

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Appendix 2²⁰

On the system of classification used by Oken (L.) in his *Lehrbuch der Naturgeschichte* of 1816. By Karl Jordan, Ph.D., F.R.S.

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Appendix 3²¹

On the question of the status of names in Oken, 1815—1816, *Lehrbuch der Naturgeschichte* 3 (Zoologie). By Angel Cabrera.

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Appendix 4²²

On the question of the use of generic names published in Oken's *Lehrbuch der Naturgeschichte*. By T. C. S. Morrison-Scott.

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¹⁹ This appendix has already appeared in Paragraph 1 of this *Opinion*.
²⁰ This appendix has already appeared in Paragraph 4 of this *Opinion*.
²¹ This appendix has already appeared in Paragraph 9 of this *Opinion*.
²² This appendix has already appeared in Paragraph 6 of this *Opinion*.

14. Publication of Mr. Hemming's Report and associated documents : Mr. Hemming's Report, together with the associated documents annexed thereto as Appendices, was published on 11th May 1954 (Hemming, 1954, *Bull. zool. Nomencl.* **9** : 193—201 (Report) ; Osgood, 1954, *ibid.* **9** : 202—203 (application) ; Jordan, 1954, *ibid.* **9** : 204—206 (technical survey) ; Cabrera, 1954, *ibid.* **9** : 206—207 (comment) ; Morrison-Scott, 1954, *ibid.* **9** : 207 (comment)).

15. Comments elicited by the publication of Mr. Hemming's Report : The publication of Mr. Hemming's Report elicited comments from three specialists, namely (1) Professor Dr. Robert Mertens (*Frankfurt a.M.*) ; (2) Dr. Philip Hershkovitz (*Chicago, Ill.*) ; (3) Professor E. Raymond Hall (*Lawrence, Kansas*)²³. These specialists were all agreed that the system of nomenclature used by Oken in his *Lehrbuch* did not satisfy the requirements of Article 25 of the *Règles*. On the question whether names first published by Oken and in common use should be validated by the Commission under its Plenary Powers there was, however, disagreement. Professor Mertens who had himself submitted a recommendation in this sense on behalf of a name published by Oken for a genus belonging to the Class Amphibia²⁴ considered that Oken names should be validated in suitable cases, while Dr. Hershkovitz and Professor Hall were opposed to the validation of any of Oken's names, considering that these names should take priority in relation to other names as from the first date subsequent to Oken's *Lehrbuch* on which they were validly published. The communications so received are reproduced in the immediately following paragraphs.

16. Comment received from Professor Dr. Robert Mertens (Forschungs-Institut und Natur-Museum Senckenberg, Frankfurt a.M., Germany) : In an application relating to the generic name *Bombina* Oken, 1816 (Class Amphibia) Professor Dr. Robert

²³ After the issue of the Voting Paper relating to the present case (see paragraph 20 of the present *Opinion*) a letter dated 17th December 1954 was addressed to the Commission by Dr. Robert R. Miller (*University of Michigan, Ann Arbor, Michigan, U.S.A.*), urging that "all the names in Oken, 1816, be ruled out if the Commission should decide that this work is unavailable".

²⁴ See paragraph 16 this page.

Mertens (*Forschungs-Institut und Natur-Museum Senckenberg, Frankfurt a.M.*) wrote on 20th October 1954 as follows (Mertens, 1955, *Bull. zool. Nomencl.* **11** : 132) :—

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3. Recently there has, however, been a tendency to reject generic names published by Oken in his *Lehrbuch* and at the present time the status of that work is under examination in accordance with a request addressed to the Secretary to the International Commission by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 365—366). I agree with the conclusion reached by Mr. Hemming in his Report on this subject (1954, *Bull. zool. Nomencl.* **9** : 193—201) that Oken did not apply the principles of binominal nomenclature in his *Lehrbuch der Naturgeschichte*. It is important therefore that the Commission should now protect the well-known generic name *Bombina* Oken.

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17. Comment received from Dr. Philip Hershkovitz (Chicago Natural History Museum, Chicago, Illinois, U.S.A) : On 3rd November 1954, Dr. Philip Hershkovitz (*Chicago Natural Museum, Chicago, Illinois, U.S.A.*) addressed a letter to the Office of the Commission with which he enclosed a memorandum entitled “Critical Remarks on the Status of Names in Oken’s *Lehrbuch*, together with a number of offprints of a paper of his entitled “Status of Names credited to Oken, 1816”, which had been published in 1949 (*J. Mammal.* **30** : 289—301). The following is the text of the first of the foregoing papers, exclusive of the portion which is concerned with the discussion of the names of individual genera of mammals which, though of great interest from the point of view of those names, falls outside the scope of the present case which is concerned only with the general principle involved. The portion so excluded has been transferred to the Commission’s File Z.N.(S.) 482, relating to the mammal names proposed in Oken’s *Lehrbuch*, of which it will form one of the basic documents.

Critical Remarks on the Status of Names in Oken’s “*Lehrbuch*”

Availability of names published in Oken’s *Lehrbuch der Naturgeschichte* (1815—1816) has been discussed by Francis Hemming

in the *Bulletin of Zoological Nomenclature* (9 : 193—201, 1954). His report is summarized in five conclusions (pp. 200—201).

Conclusions (1) and (2) point to the lack of status of names published in the *Lehrbuch* because Oken's system does not conform to the principles of binominal nomenclature. I agree with these conclusions.

Conclusion (3) states that "generic names" for certain well-known and widely distributed mammals are commonly accepted with priority from Oken's *Lehrbuch* and that the elimination of these names "would lead to instability and confusion in the nomenclature".

This conclusion is ambiguous in some respects and contradictory in others, for the following reasons :

(a) Names used by Oken cannot be certified as "generic names" according to the *Règles* in general, and according to Hemming in particular, as shown by him in paragraph 10 (p. 196) of his report in the *Bulletin* cited above, and in Conclusions (1) and (2) referred to above.

(b) In my opinion, instability in nomenclature is an inevitable consequence of the misapplication of a name, and of the use of an improperly constituted name published in a work that does not consistently apply the principles of binominal nomenclature. Conversely, stability is derived from the correct application of technical names according to Article 25 of the *Règles*, as clarified.

(c) After roundly condemning the *Lehrbuch* as a virtual Pandora's box of nomenclatorial confusion and irrationality, the Honorary Secretary to the International Commission on Zoological Nomenclature concludes that the acceptance of certain names from the *Lehrbuch* implies stability and that their rejection invites instability.

It was shown by me in 1949 (*Journal Mammal.* 30 : 289) that the discard of *all* name for mammals attributed to Oken (though not necessarily introduced by him) does not result in confusion and instability.

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Conclusion (4) given by Hemming states that validation *en bloc* of names in the *Lehrbuch* would "give rise to numerous and serious difficulties by reason of the large number of names introduced by Oken which have hitherto been ignored (paragraph 16)". This is too true.

Conclusion (5) recommends that "availability could be secured for such of Oken's generic names as are in common use and the disappearance of which in synonymy would give rise to instability and confusion by the selective use by the Commission of its Plenary Powers"

This conclusion offers a solution for a problem that does not exist. In any case, the remedy offered is worse than the ill imagined. No action of the Commission can change the text of the *Lehrbuch* to give a semblance of valid generic status to its names. With the exception of *Citellus*, *Pan* and *Panthera*, identical names in current use heretofore attributed to Oken can be cited without loss of priority from nomenclaturally legitimate sources. "*Citellus*" and "*Pan*" as employed by Oken merit no special consideration. They can be validated from binominal works of later date by suspension of the *Règles*. No power, including the Plenary Powers of the Commission, can convert the "*P*" of Oken into *Panthera* or into anything else except "*P.*", or possibly "*P[ardalis]*", as employed by Oken. In *Opinion* 110 the Commission adopted *Lagidium* Meyen, 1833 in preference to "*Viscaccia*" Oken, 1816, by suspension of the *Règles*. The Secretary to the Commission now proposes that Oken's name be given preference by the same device of Rule suspension!

Conclusion

If stability is gained by validation of certain names attributed to Oken, the names should be validated from authorities employing the principles of binominal nomenclature. The Commission can use its Plenary Powers to suspend Article 25 for the conservation of names that would lose their priority if dated later than 1816. If, however, the Commission uses its powers to suspend the *Règles in toto*, as would be required for validation of the *Lehrbuch* or parts of it, the Commission would destroy the very source of its own power.

18. Summary and recommendations prepared by Mr. Hemming for consideration by the Commission when voting on the present case : On 22nd November 1954, Mr. Francis Hemming completed the following paper summarising the history of the present case and submitting a recommendation for consideration by the Commission when voting on the present case :—

On the status of new names published in Oken's "*Lehrbuch der Naturgeschichte*"

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

Character of Oken's "*Lehrbuch*" : The character of the nomenclature used by Oken in his *Lehrbuch* is clearly shown in the Report by Dr. Karl Jordan²⁵ (*Bull. zool. Nomencl.* 9 : 204—206). This seems to me to leave no doubt on the question of the availability of new names published in Oken's *Lehrbuch*, the confused and inconsistent system of nomenclature employed not being consistent with the requirement

²⁵ For Dr. Jordan's Report see paragraph 4 of the present *Opinion*.

in Proviso (a) to Article 25 that, in order that a given book may be accepted as complying with the *Règles*, the author must in that work have consistently applied the principles of binominal nomenclature. It cannot be said that Oken did this in his *Lehrbuch*.

(2) Views received on the question of the availability of names in Oken's "Lehrbuch" : Without exception all the zoologists who have submitted statements of their views on the question of the "availability" of Oken's *Lehrbuch* are in agreement that in this work Oken did not comply with the requirements of Article 25 of the *Règles*. Communications in this sense have been received from :—(1) Wilfred H. Osgood (*Chicago*), by whom this matter was first brought to the attention of the Commission (*Bull. zool. Nomencl.* 9 : 202—203) ; (2) Karl Jordan (*Tring, England*), Honorary Life President of the Commission (*Bull. zool. Nomencl.* 9 : 204—206) ; (3) Commissioner Angel Cabrera (*Cuidad Eva Peron, Argentina*) (*Bull. zool. Nomencl.* 9 : 206—207) ; (4) The Committee of Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists ; (5) Commissioner Robert Mertens (*Frankfurt a.M.*) ; (6) Commissioner L. B. Holthuis (*Leiden*) ; (7) Philip Hershkovitz (*Chicago*).

(3) Possible courses before the Commission : If it be accepted that Oken's *Lehrbuch* does not satisfy the requirements of the *Règles*, there are, it seems to me, three possible courses of action open to the Commission, namely :—

- (a) to rule that the *Lehrbuch* is not available for nomenclatorial purposes and to leave specialists in the various groups (i) to trace the first work subsequent to Oken in which a name was validly given to the genera and species for which names appear in the *Lehrbuch* and (ii) to ascertain when and in what sense the rejected Oken names were first subsequently used ;
- (b) to use its Plenary Powers to validate Oken's *Lehrbuch* ;
- (c) to rule that the *Lehrbuch* is not available for nomenclatorial purposes but to intimate at the same time its willingness to give sympathetic consideration to applications submitted to it for the validation of individual names in the above work which can be shown (a) to be in general use and (b) to be names, the rejection of which would give rise to name-changing with consequent instability and confusion in the nomenclature of the groups concerned.

(4) Course (a) (rejection of Oken's "Lehrbuch" unaccompanied by any further action) : This seems to me to be open to strong objection. Its adoption would throw a heavy and unnecessary burden upon specialists in those groups where Oken names are in use, but, much worse than this, it would inevitably lead to the disappearance of important names which ought in the interests of nomenclatorial stability

to be preserved. It would, in my view, be inconsistent with the basic principles underlying the *Règles*, as laid down in the Preamble prefixed thereto by the Fourteenth International Congress of Zoology, Copenhagen, 1953 (*Copenhagen Decisions zool. Nomencl.* : 22, Decision 19), for the Commission deliberately to act in a way which courted instability and confusion in nomenclature. Moreover, the adoption of Course (a) would run counter to the expressed view of all except one of the specialists who have communicated with the Commission on this subject. The exception is Hershkovitz (*Chicago*) who in a paper received on 8th November (i.e. only three days before the expiry of the Prescribed Period of Public Notice) and therefore too late for publication in the *Bulletin of Zoological Nomenclature* examined the generic names used by Oken for mammals and expressed the view that, on the rejection of Oken's *Lehrbuch*, the genera concerned would bear either the same names, though attributed to different authors and to later dates, or would bear other names now currently used for them. Without expressing a view on the foregoing conclusions beyond observing that they do not tally with views expressed by other mammalogists, it must be noted that in the only other document received in which this aspect of the problem is directly discussed—the report by Wilimovsky submitted by the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists—it is stated that to leave priority to take its course would lead, in the case of the names of fishes, not only to the disappearance of well-established generic names but also in some cases to the introduction as from later authors and later dates of names published by Oken, the nominal genera bearing these later names representing a different concept from that represented by the same names as published by Oken.

(5) Course (b) (validation of Oken's "Lehrbuch" under the Plenary Powers) : No one has suggested that Oken's *Lehrbuch* should be validated under the Plenary Powers, and this possibility is only mentioned here, since on any theoretical analysis of the courses of action which might be adopted by the Commission this is clearly one which ought to be considered, even if only to be at once dismissed. It is only necessary to observe that the validation of Oken's *Lehrbuch* would involve not only the validation of the large number of generic names not currently accepted by specialists but also the validation of the very much larger number of specific names first published in this work which are not now in use. The resuscitation of these names would involve name-changing on a very large scale and would certainly cause great confusion. From every point of view, Course (b) may therefore at once be ruled out.

(6) Course (c) (rejection of Oken's "Lehrbuch", combined with an intimation by the Commission of its willingness to validate Oken names where necessary in the interests of nomenclatorial stability) : In some groups, for example in the Class Insecta in the Orders Hemiptera (China, *in litt.*, 21st April 1952) and the butterflies (Hemming) Oken's

Lehrbuch does not present a serious problem, the new generic names introduced in the *Lehrbuch* being junior synonyms of generic names of older date. In other groups it is far otherwise. For example, in the Class Ciliophora the name *Stentor* Oken is involved; in the Class Crustacea, the name *Mitella*; in the Class Amphibia, the name *Bombina*; in the Class Pisces, a number of important names in current use; in the Class Mammalia such names as *Pan*, *Genetta*, *Panthera*, etc. Of the numerous specialists who have expressed opinions on the method to be adopted for preventing the confusion which would result from the disappearance of important Oken names all except one favour the use by the Commission of its Plenary Powers for the purpose of validating important Oken names in current use. These include:—(1) the late Harold Kirby (*University of California, Berkeley, Cal.*); (2) G. Kolosváry (*Hungary*); (3) Dora Priaulx Henry (*Seattle*); (4) L. B. Holthuis (*Leiden*); (5) Robert Mertens (*Frankfurt a.M.*); (6) the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists (W. I. Follett; Norman J. Wilimovsky; Charles M. Bogert; Fred. R. Cagle; Hobart M. Smith; Robert C. Stebbins); (7) Ethelwynn Trewavas (*British Museum (Natural History)*); (8) T. C. S. Morrison-Scott (*British Museum (Natural History)*); (9) George Gaylord Simpson (*American Museum of Natural History, New York*); (10) J. C. Trevor (*University Museum of Archaeology and Ethnology, Cambridge University*). The one specialist who holds a different view is Philip Hershkovitz (*Chicago*) who, while advocating the rejection of the *Lehrbuch* (a question on which all the specialists concerned are agreed) also advocates (as noted in paragraph (4) above) the rejection without exception of all the names published in that work²⁶.

(7) Course Recommended : For the reasons set out in the Report now submitted (see paragraph 1 above), I recommend that the Commission should give a Ruling that in the *Zoologie* volume of the *Lehrbuch* Oken did not apply the principles of binominal nomenclature and that new names in that work accordingly possess no status in nomenclature in virtue of having been so published. On the question of the procedure to be adopted in relation to generic names in common use with priority as from Oken, it is relevant to recall that in Paris in 1948 the Commission dealt with an exactly similar problem when it considered the treatment to be accorded to important names currently accepted as from non-binominal authors; the Commission then recommended, and the Thirteenth International Congress of Zoology so approved, that there should be inserted in Article 25 a provision prescribing a special simplified procedure for the purpose of enabling the Commission rapidly to use its Plenary Powers for the purpose of preserving well-known names published in non-binominal works found to be invalid (1950, *Bull. zool. Nomencl.* 4 : 65). At the same

²⁶ Subsequent to the completion of the above paper a communication in a similar sense was received from Professor E. Raymond Hall (*Kansas*). See paragraph 19 of the present *Opinion*.

Session, the Commission applied the foregoing provision for the purpose of validating the generic name *Corixa* Geoffroy, 1762, a name published in the non-binominal work entitled *Histoire abrégée des Insectes qui se trouvent aux Environs de Paris*, and, when dealing with foregoing work as a whole, issued a general invitation to entomologists to submit applications for the validation of important names published in it, at the same time giving an assurance that sympathetic consideration would be given to applications so submitted (1950, *Bull. zool. Nomencl.* 4 : 368—370). The foregoing decisions have since been embodied in *Opinion* 228 (Geoffroy) and *Opinion* 281 (*Corixa*). The procedure for dealing with cases such as the present has thus been already laid down and I recommend that it should now be followed.

(8) **Draft Ruling submitted :** In the light of the foregoing particulars, I submit in the attached Annexe the draft of a Ruling on the present case which I commend to the consideration of the Commission. The wording proposed follows closely that employed in *Opinion* 228 (case of Geoffroy, 1762).

ANNEXE

Draft Ruling relating to the status of Oken's "Lehrbuch" submitted for the consideration of the Commission

RULING :—(1) In Volume 3 (Zoologie) of the work entitled *Oken's Lehrbuch der Naturgeschichte*, published in 1815—1816, Lorenz Oken did not apply the principles of binominal nomenclature as required by Proviso (b) to Article 25, as amended by the Thirteenth International Congress of Zoology, Paris, 1948, and accordingly no name published in the foregoing work acquired the status of availability by reason of having been so published.

(2) The title of the foregoing work is accordingly hereby placed on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature*.

(3) Specialists in the groups dealt with in the foregoing work are invited to submit to the International Commission on Zoological Nomenclature applications for the validation under the Plenary Powers of any name published in it, the rejection of which would, in their opinion, lead to instability or confusion in the nomenclature of the group concerned.

19. Comment received from Professor E. Raymond Hall (University of Kansas, Lawrence, Kansas, U.S.A.) : On 18th November 1954, Professor E. Raymond Hall (*University of Kansas, Lawrence, Kansas, U.S.A.*) addressed a letter to the Office of the Commission commenting upon the present case and also on the case of the individual name *Stentor* Oken, 1815 (Class Ciliophora). Though received in the Office of the Commission just before the issue to the Commission of the Voting Paper in the present case, Professor Hall's letter was too late to permit of reference being made to it in the summary then submitted to the Commission (paragraph 18 above). The following is the portion of Professor Hall's letter which was concerned with the present case :—

Receipt of a copy of comments on . . . the status of names published in Oken's *Lehrbuch der Naturgeschichte* as transmitted to you under date of 3rd November 1954, by Philip Hershkovitz²⁷ [Commission Reference Z.N.(S.) 153] prompts me to write that we have re-examined pertinent materials available here, including pages 193—218 of volume 9 of the *Bulletin of Zoological Nomenclature*, and that we agree with Hershkovitz. That is to say, we favor dropping such of Oken's names as are in use in favor of the next available authority or even name. Indeed, we have in practice been doing this. See, for example, our use of *Spermophilus* instead of *Citellus* in *Univ. Kansas Publ., Mus. nat. Hist.* 7 : 483 ; 7 : 543, 1954. Not using Oken, in our view, will be a convenience in mammalogy, and also a means of achieving desirable stability.

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III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

20. Issue of Voting Paper V.P.(54)91 : On 26th November 1954, a Voting Paper (V.P.(54)91) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the nomenclatorial status of Oken's *Lehrbuch der Naturgeschichte* submitted in the Annexe to the paper by the Secretary [i.e. in the Annexe to the paper reproduced in paragraph 18 of the present *Opinion*] simultaneously with the present Voting Paper".

²⁷ For Dr. Hershkovitz's communication see paragraph 17 of the present *Opinion*.

21. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 26th February 1955.

22. Particulars of the Voting on Voting Paper V.P.(54)91 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(54) 91 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-two (22) Commissioners (arranged in the order in which Votes were received) :*

Mertens ; Holthuis ; Hering ; Lemche ; Stoll ; Bradley (J.C.) ; Vokes ; Esaki ; Jaczewski ; Bodenheimer ; Dymond ; Bonnet ; Riley ; Hankó ; Boschma ; Miller ; Key ; do Amaral ; Hemming ; Cabrera (except Ruling (3)) ; Kühnelt ; Sylvester-Bradley ;

(b) *Negative Votes : one (1) (for a portion only) :*

Cabrera (Ruling (3) only) ;

(c) *On Leave of Absence : one (1) :*

Prantl ;

(d) *Voting Papers not returned :*

None.

23. Declaration of Result of Vote : On 27th February 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(54)91, signed a Certificate that the Votes cast were as set out in paragraph 22 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

24. Preparation of the Ruling given in the present "Opinion" :
On 2nd March 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(54)91.

25. At the time of the submission of the present application the name applicable to the second portion of a binomen was "trivial name". This was altered to "specific name" by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which at the same time made corresponding changes in the titles of the *Official List* and *Official Index* of names of this category. These changes in terminology have been incorporated in the Ruling given in the present *Opinion*.

25. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

27. The present *Opinion* shall be known as *Opinion* Four Hundred and Seventeen (417) of the International Commission on Zoological Nomenclature.

DONE in London, this Second day of March, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING